

CLAIMS

1. A record control apparatus comprising:

a buffer for storing moving image data belonging to a  
5 chapter,

storage size detecting means for detecting that the  
moving image data stored in the buffer increases in size  
beyond a first size and then reaches a second size,

final data detecting means for detecting that the final  
10 moving image data belonging to the chapter is stored in the  
buffer, and

moving image object output means for retrieving a  
portion of the moving image data, stored in the buffer,  
corresponding to the first size from the head of the moving  
15 image data, and outputting the portion of the moving image  
data as a moving image object if it is detected that the  
moving image data stored in the buffer reaches the second  
size, and retrieving the whole moving image data stored in  
the buffer and outputting the retrieved moving image data as  
20 a moving image object if it is detected that the final  
moving image data belonging to the chapter is stored in the  
buffer.

2. The record control apparatus according to claim 1,  
wherein the storage size detecting means comprises:

25 size measurement means for measuring the size of the

moving image data stored in the buffer,

time measurement means for measuring time by converting,  
into time, the size of the moving image data stored in the  
buffer, and

5 threshold detecting means for detecting that the time  
measurement means detects the second size after the size  
measurement means detects the first size.

3. The record control apparatus according to claim 2,  
wherein the storage size detecting means further comprises  
10 threshold holding means for holding the first size and the  
second size and supplying the threshold detecting means with  
the first size and the second size.

4. The record control apparatus according to claim 3,  
further comprising threshold setting means for setting the  
15 first size of the moving image object as a standard size of  
the moving image object, and the second size of the moving  
image object as a lower limit value of the moving image  
object for seamless connection in the threshold holding  
means.

20 5. The record control apparatus according to claim 1,  
wherein the moving image object output means comprises  
packing means for dividing the moving image data retrieved  
from the buffer into packs, each pack having a fixed length,  
and

25 multiplexing means for multiplexing the packed moving

image data and outputting the multiplexed moving image data as the moving image object.

6. An encoding system comprising:

moving image encoding means for encoding a moving image  
5 signal and outputting the encoded moving image signal as moving image data,

audio encoding means for encoding an audio signal and outputting the encoded audio signal as audio data,

a buffer for storing the moving image data belonging to  
10 a chapter,

storage size detecting means for detecting that the moving image data stored in the buffer increases in size beyond a first size and then reaches a second size,

final data detecting means for detecting that the final  
15 moving image data belonging to the chapter is stored in the buffer,

moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving  
20 image data, multiplexing, as a moving image object, the retrieved portion of the moving image data and the audio data, and outputting the moving image object if it is detected the size of the moving image data stored in the buffer reaches the second size, and retrieving the whole  
25 moving image data stored in the buffer, multiplexing, as a

moving image object, the retrieved moving image data and the audio data, and outputting the moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer.

5           7. A record control method of a record control apparatus having a buffer storing moving image data belonging to a chapter, comprising:

          a step of encoding the moving image data and outputting successively the encoded moving image data to the buffer,

10           a step of detecting that the moving image data stored in the buffer increases in size beyond a first size and then reaches a second size,

          a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from  
15 the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size,

          a step of detecting that the final moving image data  
20 belonging to the chapter is stored in the buffer, and

          a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the  
25 buffer.

8. A record control method of a record control apparatus having a buffer storing moving image data belonging to a chapter, comprising:

5 a step of setting a first size of the moving image object as a standard size of a moving image object, and a second size of the moving image object as a lower limit value of the moving image object for seamless connection,

a step of encoding the moving image data and outputting successively the encoded moving image data to the buffer,

10 a step of detecting that the moving image data stored in the buffer increases in size beyond the first size and then reaches the second size,

a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from  
15 the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size,

a step of detecting that the final moving image data  
20 belonging to the chapter is stored in the buffer, and

a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the  
25 buffer.

9. A program for causing a computer to perform a record control method of a record control apparatus having a buffer storing moving image data belonging to a chapter, comprising:

5       a step of encoding the moving image data and outputting successively the encoded moving image data to the buffer,

          a step of detecting that the moving image data stored in the buffer increases in size beyond a first size and then reaches a second size,

10       a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size,

15       a step of detecting that the final moving image data belonging to the chapter is stored in the buffer, and

          a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer.

10. A program for causing a computer to perform a record control method of a record control apparatus having a buffer storing moving image data belonging to a chapter,

comprising:

a step of setting a first size of the moving image object as a standard size of a moving image object, and a second size of the moving image object as a lower limit value of the moving image object for seamless connection,

a step of encoding the moving image data and outputting successively the encoded moving image data to the buffer,

a step of detecting that the moving image data stored in the buffer increases in size beyond the first size and then reaches the second size,

a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size,

a step of detecting that the final moving image data belonging to the chapter is stored in the buffer, and

a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer.